Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

February 27, 1990

Mr.Eric York
Mine Manager
Moab Salt, Incorporated
P. O. Box 1208
Moab, Utah 84532

Dear Mr. York:

Re: Subsidence Evaluation, Moab Salt, Inc., Cane Creek Mine, M/019/005, Grand County, Utah

The minerals staff has evaluated the subsidence information which you submitted to us last fall. As you are aware, we have been waiting to resolve the subsidence monitoring question until we filled our vacant mining engineer technical position. We have hired a new engineer, Mr. Tony Gallegos, who has been with us approximately one month now.

Mr. Gallegos, Holland Shepherd, and I met on January 24, 1990, to discuss the subsidence question. Mr. Gallegos has evaluated the Schnabel Engineering report and other subsidence-related material sent by Moab Salt. He also contacted Schnabel Engineering with some questions concerning certain figures and assumptions submitted in their last report.

As a result of our meeting, certain questions were raised which still need to be resolved. Of principal concern is the potential for any subsidence impact to the Colorado River. Regardless of our final decision on the subsidence monitoring issue, we cannot permit the Colorado River to be impacted by mining-related subsidence.

We would like to discuss the following questions with Moab Salt, Inc.'s representatives before we reach a final decision regarding continued subsidence monitoring.

1. How accurate is the previous surface subsidence report (attached), which was based upon four subsidence surveys performed at the Cane Creek Mine? Are all the monitoring points unreliable or only some of the measurement stations? What amount of vertical change has the operator measured in injection well head elevation?

2. What are Moab Salt's future mining plan projections? Which areas of the mine are likely to receive the most mining activity during the remaining mine life?

3. How accurate is the current subsidence prediction? Some errors were detected by the Division in the recent subsidence report. It is our understanding that Schnabel Engineering will be revising some of their subsidence calculations and forwarding the results to you. What is the significance of these revised figures and what subsidence changes can we interpret as a result?

4. Can Moab Salt confirm their contention that the salt formation is expanding by plastic flow, thereby reducing the extent of the underground mine workings? If so, how will this process affect the subsidence scenario above and surrounding the mine?

5. Given the nature of the geologic formations above the mine and the depth of the mine, what is the likelihood that subsidence fracturing will extend to the surface?

At this time, we are not asking Moab Salt for a formal written response to these questions. However, we would like to sit down and discuss them with your staff at a meeting in our Salt Lake office. If possible, we would like to schedule this meeting within

the next 30 days, preferably no later than March 30, 1990. Please contact us at your earliest convenience to arrange a convenient time to schedule this meeting. Thank you for your patience and continued cooperation in resolving this matter.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor

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Attachment
cc: L. P. Braxton
T. Gallegos
H. Shepherd
WMN/1-3